



**Independent Scientific Review Panel**  
for the Northwest Power & Conservation Council  
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**Memorandum (ISRP 2009-48)**

**November 25, 2009**

**To:** Tony Grover, Fish and Wildlife Division Director, Northwest Power and Conservation Council

**From:** Eric Loudenslager, ISRP Chair

**Subject:** FY 2007-09 Follow-up Review of Wenatchee Complexity Project, 200732500: Site CMZ C6

## **Background**

At the Council's November 6, 2009 request, the ISRP evaluated documentation provided by the Chelan County Natural Resource Department to justify restoration actions on one of four proposed project sites for the Wenatchee Complexity Project, 20073250. Chelan County provided this information in response to earlier ISRP reviews, which requested more details to allow us to assess the value of the project on scientific merit ([ISRP 2008-13](http://www.nwcouncil.org/library/isrp/isrp2008-13.htm)<sup>1</sup>). In that review, although we preferred a complete plan for all sites, we noted that to allow for sequential implementation of the project, we would review support documents for each site as they became available. Chelan County took the sequential approach.

In February 2009, we found the support documents justified restoration actions at site CMZ 11 ([ISRP 2009-4](http://www.nwcouncil.org/library/isrp/isrp2009-4.htm)<sup>2</sup>). In a July 2009 review we found the restoration actions at site CMZ N4 were scientifically justified ([ISRP 2009-29](http://www.nwcouncil.org/library/isrp/isrp2009-29.htm)<sup>3</sup>). Submittals for the fourth site are anticipated in December 2009. A fifth site, CMZ 17, will not be addressed under this BPA-funded project.

Our review of the supporting documents for site CMZ C6 follows below.

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<sup>1</sup> [www.nwcouncil.org/library/isrp/isrp2008-13.htm](http://www.nwcouncil.org/library/isrp/isrp2008-13.htm)

<sup>2</sup> [www.nwcouncil.org/library/isrp/isrp2009-4.htm](http://www.nwcouncil.org/library/isrp/isrp2009-4.htm)

<sup>3</sup> [www.nwcouncil.org/library/isrp/isrp2009-29.htm](http://www.nwcouncil.org/library/isrp/isrp2009-29.htm)

## **Recommendation**

Meets Scientific Criteria (Qualified)

Qualification: the monitoring program needs to be improved (as per previous ISRP comments on other CMZ projects), and the projected benefits (estimates of the number of fish using the restored channel) need to be reported, based on surveys of other off-channel habitats in the area.

## **Comments**

In our October 24, 2008 memo, the ISRP asked for information on five items for each site:

1. an adequate description of what will be done, including the details of anticipated habitat benefits

The project plans and diagrams were thorough and helpful. The project proponents state that the plans are about 70% complete, but the level of detail was sufficient for ISRP needs.

An explanation of how Table 5 was constructed would be useful, e.g., how was “known” and “actual” presence of the various species determined if restoration of the side channel has not been completed yet? Note the area was being used as high water refuge before construction. It would be helpful to provide references or other evidence for assuming that the channel would serve all the life history stages believed to use the restored area.

The prediction of fish use of CZM-6 is based on extrapolation from fish use of the previously constructed Gagnon and Dryden backchannels, although there were no references to fish use of natural side channels in the area. The response would be improved by information on how the expected densities compare to those found in natural habitats. Could a habitat model also be used? What are the densities of fishes in natural side channels in the lower Wenatchee?

As per previous comments – why so many dace? The abundant dace population suggests that the channel may contain some habitat features (somewhat warmer water and finer-grained substrate) that may not favor salmonids.

2. identification of focal species and some quantitative expression of how the project would contribute to the species’ recovery

Previous ISRP reviews of CMZ projects supported the use of ISEMP as documentation about how the project could contribute to recovery at the population level. The ISRP continues to feel that some quantitative estimate of use of the restored area, by focal species, should be given to demonstrate that the project is likely to be effective.

3. an ecological justification of the project, often achieved by citing its importance to successful implementation of the appropriate subbasin plan and by showing linkages with ongoing recovery programs in the area

The ecological justification is grounded in the project's relationship to hypotheses statements in the subbasin plan. Importance is solely judged on a qualitative basis – responses to the habitat creation are rated as low-moderate-high. There is little quantification used; however, there are sufficient fish census data from the area to project gains in production as a result of the project.

4. evidence of landowner cooperation, usually documented by reference to conservation easements and other long-term agreements

The landowner was not willing to cede land to create an oxbow that crossed Hwy 2 as originally envisaged. However, the proponents appear to have instead proposed a lower-cost 500 ft flow-through channel (south side of the highway), increasing the available rearing area to 800 ft of stream channel and 0.65 ac of wetland habitat. Affected landowners have agreed to allow the CCNRD to pursue funding for the project, but appear not to have granted a full conservation easement at this time.

5. a thorough description of the post-implementation monitoring plan, including the procedures used to verify the project's habitat benefits and biological effectiveness.

Comments on other CMZ projects regarding the need for more frequent and multi-year surveys (e.g., [ISRP 2009-4](#)) are relevant, and possibly more so because monitoring of this project is only planned for three years (previous projects were for five years), which we feel is insufficient to adequately assess biological effectiveness.

The project proponents state on page 28: *“The downstream 300 feet of the existing channel is dominated by reed canary grass. This section of the channel will be excavated to provide year-round inundation and then replanted with willows and cottonwoods.”*

Given the invasive nature of reed canarygrass, it is likely the shallow parts of the channel (at least) should be frequently re-excavated as a control measure. Reed canarygrass will be difficult to remove permanently by excavation and is likely to recolonize the site. This aspect of the project should be carefully monitored. Brook trout are another potentially invasive species that should be watched if they do appear in the side channel, as we suggested in previous reviews, because they could prey on young salmon and steelhead.